UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
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BOSTON, MASSACHUSETTS 02114-2023

April 18, 2000

Art Coccoli (coccoliaa@efdnorth.northdiv.navy.mil)
Northern Division, Naval Facilities Engineering Command
Code 1822/AC
10 Industrial Highway, Mailstop 82
Lester, PA 19113-2090

Re: Draft 1999 Annual Monitoring Report, Site 1, 3 and the Eastern Plume, Naval Air Station, Brunswick, Maine

Dear Mr. Coccoli:

Thank you for the opportunity to review the above report. Upon our review and per the technical meeting on April 11, 2000 we have the following attached comments in the attachment. To aid in response, comments are coded as below. General and specific comments have been combined and are in chronological order.

(RR)	Response requested.
(NR)	No response required, usually an observation/note or issue expected to be overcome by events.
(ED)	Means editorial comment or suspected typographical/format error.
(/MTG)	Means comment should be discussed prior to response. All were discussed at the April 11th meeting.

This year's report was markedly improved from last years'; we greatly appreciate the effort you and EA Engineering, Science and Technology put into the report preparation. If you have any questions, please contact me at 617-918-1344 or barry.michael@epa.gov.

Sincerely,

Michael S. Barry
Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc. Ed Benedikt/Brunswick Conservation Commission (rbenedik@gwi.net)
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Attachment

1. (NR/MTG) Another explanation for similar VOC concentrations at EW1 and MW229A is that higher VOC's from the deep EW1 screen (11 to -67 ft MSL) are being diluted by a large pull from the shallow aquifer to the level of VOCs in the 36 foot shallower screened MW-229A. Also, all things being equal dilution, similar to that of EW-5 and P-106 would be expected. This was discussed at the meeting, we may have misinterpreted the draft text. Also, we think future work in the southern boundary area will shed more light on this. Page 3-1 refers.

2. (RR/MTG) Cross sections C-C' and C-CC' from the RI showed that shallow groundwater does flow north from the area south of mere brook, but that the deep system continues to flow in the regional southern direction. This was discussed at the meeting and future work on the southern boundary should provide more information. Because the figures are interpretive, EPA will not argue to change the deep gradients for this report. However, we urge the Navy to consider this in future reports. Our belief in the prevalence of regional southerly flow is also key to our concern that VOC's could be flowing south through gaps in the network. Page 3-3, sect 3.2.1 refers.

3. (ED) EW3 is off service (ref to draw down).

4. (NR) We assume 1,1,1-TCA is not a commonly reported VOC above the MCL in the eastern plume because it's MCL is two orders of magnitude higher, at 200 ppb. Page 3-6, section 3.3.2.1. refers.

5. (NR/MTG) We believe primary VOC flow direction may actually be southwest rather than southeast because of being constrained by deep clay covered bedrock rising in a SW-NE axis (MEDEP's GMS figures displayed this configuration well). A large amount of VOC's are/were being pulled to the southeast into the MW-311 "arm" EW-2A, EW-2 and artesian flow out through MW-311 in 1990-1995. However, VOC's were initially low in MW-311 during historical release period (1950's through the RI) and the deep wells put in on the southeast came up very low or ND, confirming this (MW-333/334). This along with comments 1 and 2 speak to our concerns about potential flow to the south. This was discussed at the meeting and we expect future work on the southern boundary will address this concern. Page 3-7,m section 3.3.2.1, third dash refers.

6. (NR/MTG) Landfill repairs. Please refer to EPA comments to repairs letter report for specific comments. Essentially, we concur with annual inspections/repair as necessary. It appears the cap was not constructed according to design in all aspects, especially the drainage structures. This may result in more repairs and maintenance than expected over the life of the cap. A mitigating factor at sites 1 and 3 is the relatively flat slope, thus this appears to be more a recurring maintenance cost than a remedy protectiveness concern. As discussed at the meeting, we believe the current inspection and maintenance program is effective and appropriate. Top of page 3-12 refers.

7. (NR) Diffusion samplers have the potential to provide additional vertical profiling information in addition to providing results comparable to low flow at much reduced cost. Vertical placement seems to be the critical factor. We commend the Navy on proactively studying diffusers, look forward to the next trial results and await a proposal for their formal use. Section 3.6.1. refers.

8. (NR) Section 3.6.2, Seep-04. Another idea would be to use liquid diffusers before installing a well and/or using a temporary or micro well. This might obtain good data and save some funds.

9. (NR/MTG) Section 3.6.3, new EW's. A new, deep screened EW5 is obvious. Perhaps the second deep screened EW might be more optimally placed further south, near EW1, especially if some time and effort will be spent to optimize location? Probing in the immediate area around EW5 seems reasonable as a lot is known about that area. This was generally discussed at the meeting with no formal resolution.

10. (NR/MTG) Section 3.6.4, last bullet. Significant probing would be required to resolve the potential

preferential flowpath to the south-southwest. Because of the relatively large area and small size of potential pathways the cost of active probing the entire area may become quite high. We think seismic reflection is best suited to this task, but perhaps a synergy of seismic methods (perhaps less accurate and cheaper) and probing would be most optimal? This was generally discussed at the meeting and it's our understanding the Navy is going to undertake some seismic reflection work.

11. (NR) The TCE, PCE and 111-TCA figures were interesting and complimented the gradient and total VOC figures in the event reports well.

12. (ED) The "bullseye" charts at appendix A-1,2 are interesting but are all or nothing. For next year, the Navy might consider using three or four colors (100, 500 or 1000ppb VOC's). This would display progress over the range of VOC's we have seen. In later years as MCL's are approached, just using above and below the MCL is more important.

13. (ED) Figures 3-1,2,3,4 have a dashed line for the "one plume" inferred above MEG/MCL and also has shaded areas for the "two lobes" inferred above the MCL/MEG. We concurred on the one plume version.

14. (NR) The figures on pages 2-1,2,3 are a welcome relief from having to page back and forth from text to figures.

15. (NR) For the final report, we recommend only shipping out new text pages to save reprinting all the color graphs and figures unless something changed.

Comment Table

Number	RR	ED	NR	MTG	Refers to
1			X	X	EW1 and MW229A VOC's
2	X			X	Deep Gradients South of Mere Brook
3		X			EW3 reference
4			X		1,1,1-TCA
5			X	X	Plume Flow Direction SW
6			X	X	Landfill Repairs
7			X		Diffusers
8			X		Seep-04, New MW
9			X	X	New EW's
10			X	X	Interface Probes vs Seismic Reflection in South
11			X		VOC Figures
12			X		"Bullseye" Charts
13		X			Area Above MCL on Figures
14			X		Figures on Pages 2-1,2,3
15			X		Revision to Draft Report